

CLAIMS

What is claimed is:

1. A method for determining the optimal fingering for a given musical instrument comprising:

- a. providing a memory which is able to store digital musical data,
- b. providing a means of inputting and storing digital musical data into said memory,
- c. calculating the optimum and alternate fingering of different musical instruments based on said digital musical input data,
- d. providing a means to output said musical instrument fingering data,

whereby musical instrument fingering information is conveyed to an interested party, and

whereby musical instrument fingering information can be used by an interested party to optimally perform the musical data on an instrument or publish the fingering information.

2. The method of claim 1 wherein the fingering information is comprised of which finger is placed where on a selected instrument.
3. The method of claim 1 wherein the fingering information is comprised of tablature information.
4. The method of claim 1 wherein the optimum fingering is fingering such that hand movement is minimized on the instrument for the given digital musical data.
5. The method of claim 1 wherein the alternate fingering is fingering such that it is easier to perform for the skill level of a given performer.
6. The method of claim 1 wherein the alternate fingering is fingering such that it provides for a preferred tonal stylization for a given performer or composer.
7. The method of claim 1 wherein the input musical data is comprised of a musical score.

8. The method of claim 1 wherein the input musical data is comprised of tablature information.
9. The method of claim 1 wherein the input means is a data storage device containing digital musical data.
10. The method of claim 1 wherein the input means is a computer network from which digital musical data is obtained from.
11. The method of claim 1 wherein the input means is a computer program where digital musical data is entered by a mouse, keyboard, or tablet.
12. The method of claim 1 wherein the input means is a MIDI device providing digital musical data.
13. The method of claim 1 wherein the input means is a digitizing scanner that scans paper containing musical data, and a means of converting the scanner's digitized image into digital musical data.
14. The method of claim 1 wherein the input means is a microphone that captures musical sounds, an analog-to-digital converter that converts the sounds into digital information, and a means of converting the digital information into digital musical data.
15. The method of claim 1 wherein the output means is a data storage device.
16. The method of claim 1 wherein the output means is a computer network.
17. The method of claim 1 wherein the output means is a printer.
18. The method of claim 1 wherein the output means is a computer monitor.
19. The method of claim 1 wherein the output means is a device that uses the fingering information for a musical performance.
20. A machine for determining the optimal fingering of a musical instrument, comprising:
 - a. a memory which is able to store digital musical data,

- b. a musical data input means for storing digital musical data into said memory,
- c. a processor for calculating the optimum and alternate fingering of different musical instruments based on said digital musical input data,
- d. an output means for conveying said musical instrument fingering data, whereby musical instrument fingering data is conveyed to an interested party, and whereby musical instrument fingering data can be used by an interested party to optimally perform the composition on an instrument or publish the fingering data.